



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/653,202 | 08/31/2000 | Sang-Seok Lee | 8733-291-00 | 4707 |
| 30827 | 7590 | 06/15/2004 | EXAMINER | |
| MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006 | | | | DUONG, THOI V |
| | | ART UNIT | | PAPER NUMBER |
| | | 2871 | | |

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. 09/653,202 | Applicant(s) LEE ET AL. |
|------------------------------|-------------------------------|----------------------------|
| | Examiner Thoi V Duong | Art Unit 2871 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 23 July 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 1-8, 10-15 and 19-21 is/are allowed.

6) Claim(s) 9 and 16-18 is/are rejected.

7) Claim(s) 22-24 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 23, 2003 has been entered.

Accordingly, claims 1, 5-7 and 9-12 were amended, and new claims 13-24 were added. Currently, claims 1-24 are pending in this application.

Claim Objections

2. Claim 9 is objected to because of the following informalities: claim 9 recites the limitation "the second substrate" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh (USPN 6,636,192 B1).

As shown in Figs. 8-10, Saitoh discloses a method of forming a liquid crystal display panel, comprising:

forming a common electrode 32 on a first substrate 31;

forming a plurality of conductive contact dots 56 on a second substrate 30 (Fig. 10A);

forming a seal pattern 200 on the second substrate, the seal pattern having a plurality of semicircular bent portions, the semicircular bent portions each having an open portion and an arc portion opposite the open portion, the arc portion being closer to a display region of the second substrate than the open portion, wherein each semicircular bent portion circumvents a conductive contact dot 56 (Fig. 10B);

assembling the first substrate and the second substrate (col. 13, lines 5-22); and

forming a liquid crystal layer between first and second substrates (col. 1, lines 15-27).

Re claim 16, the display region is defined within a closed formation of the seal pattern 200 (Fig. 8).

Re claims 17 and 18, the conductive contact dot 56 is located outside the display region (Fig. 8).

Allowable Subject Matter

5. Claims 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Please see below reasons for allowance for claims 10-12.

6. Claims 1-8, 10-15 and 19-21 allowed.

The following is an examiner's statement of reasons for allowance:

Re claims 1 and 5-7, none of the prior art of record suggests or discloses alone or in combination that a seal pattern has a plurality of triangular bent portions, each having an open side and a vertex opposite the open side, the vertex directed toward an inside a display area of the second substrate, wherein each triangular bent portion circumvents a conductive contact dot.

Re claims 10-12, none of the prior art of record suggests or discloses alone or in combination that a seal pattern has a plurality of semicircular bent portions, the semicircular bent portions being bent toward an inside of the second substrate wherein each semicircular bent portion circumvents a conductive contact dot,

wherein, re claim 10, each of the two ends of the semicircular bent portion has a radius of 0.5 to 2 mm;

wherein, re claim 11, the semicircular portion has a radius of 2.5 to 10 millimeters; and

wherein, re claim 12, a distance between a conductive contact dot and a semicircular portion is 0.1 to 5 millimeters.

The most relevant reference, USPN 6,636,192 B1 of Saitoh, fails to disclose or suggest a seal pattern having a plurality of triangular bent portions or a seal pattern having a plurality of semicircular bent portions with the above dimensions. The Saitoh's reference only discloses a sealing pattern having a plurality of bent portions without any specific dimensions. The bent portions of the seal pattern 200 are bent toward an

Art Unit: 2871

inside of the second substrate, wherein each semicircular bent portion circumvents a conductive contact dot 56 as shown in Fig. 9B.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (571) 272-2293.

Thoi Duong *TD*

06/03/2004

Dung T. Nguyen
DUNG T. NGUYEN
PRIMARY EXAMINER